Patent
Attorney's Docket No. 010091-001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	)	
	)	
Richard C. SCHLEGEL et al.	)	Group Art Unit: 1813
	)	
Application No.: 08/216,506	)	Examiner: A. Caputa
	)	
Filed: March 22, 1994	)	
	)	
For: PAPILLOMAVIRUS VACCINE	)	

DECLARATION PURSUANT TO 37 C.F.R. § 1.132

Honorable Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

I, A. Bennett Jenson, declare and state as follows:

(1) I am a co-inventor of the above-identified application.

(2) I was awarded an M.D. from Baylor College of Medicine in 1966.

(3) I am an author on numerous articles relating to papillomavirus research, particularly involving the role of human papillomaviruses in cervical cancer and the identification of conformational and non-conformational epitopes by the use of monoclonal antibodies.

(4) I am an invited speaker at numerous scientific meetings which relate to human papillomavirus immunology and the study of human papillomavirus disease. My curriculum vitae is attached to this Declaration as Exhibit A.

(5) I have reviewed the Office Action by Examiner Caputa issued on September 8, 1994. I also attended an interview with Examiner Caputa wherein the

issues raised in this Office Action were discussed. It is my understanding that the Examiner is of the opinion that there is insufficient evidence of record to distinguish the subject papillomavirus L1 proteins which exhibit the same conformation and reproduce the antigenicity of L1 proteins expressed on intact, native papillomavirus virions from the L1 proteins which are disclosed in Zhou et al., Journal of General Virology, 71, 2185-2190, (1990) or Zhou et al., Virology, 185 (1), 251 or 257, (1991).

(6) I have reviewed both of the Zhou et al. references identified above. Based on research conducted under my direct supervision, and also based upon independent research, it is my expert opinion that neither Zhou et al. reference describes the production of L1 proteins which reproduce the antigenicity and exhibit the same conformation as L1 proteins expressed by native, intact papillomavirus virions.

(7) I base my opinion upon the fact that both Zhou et al. references express a prototype HPV-16 L1 sequence which was initially cloned from a HPV-16 genome which had integrated into the chromosomes of a squamous cervical cell carcinoma. This is clear based upon the fact that both of the Zhou et al. references identify as the source of their HPV-16 L1 DNA, an HPV-16 DNA initially identified by Dürst et. al., (initially reported in Proc. Natl. Acad. Sci., USA, 80, 3812-3815 (1983)). For example, Zhou et al. (1991) identifies Dr. Glisman (a co-author on the Dürst et al. paper, *supra*) as the source of their HPV-16 L1 gene. Similarly, Zhou et al. (1990) identify Dürst et al., Proc. Natl. Acad. Sci., USA, 80, 3812-3815 (1983) as the source of their HPV-16 L1 DNA.

(8) Later research has demonstrated that the prototype HPV-16 L1 protein expressed in both of the Zhou et al. references differs substantially from the wild-type

HPV-16 L1 protein. For example, Roden et al., J. Virol., 68, 7260-7266, (1994) describe that antisera produced against the prototype HPV-16 L1 proteins does not inhibit the binding of wild-type HPV-16 virus-like particles to cell surfaces. By contrast, antisera raised in rabbits to wild-type HPV-16 L1 protein did inhibit binding of wild-type HPV-16 virus-like particles to cell surfaces (see in particular the last paragraph, page 7265 of Roden et al. (Id.)). Also, Roden et al. describe that the prototype HPV-16 L1 contains a point mutation which makes it assemble 3 orders of magnitude less efficiently than the wild-type L1 protein. This protein has been characterized by other researchers and comprises a point mutation which changes an aspartic acid at position 202 to a histidine residue. This is described in Kirnbauer et al., Proceedings of National Academy of Science, USA, 89, 12180-12184 (1992) and Kirnbauer et al., Journal of Virology, 67, 6429-6436 (1993).

(9) Further evidence that the prototype HPV-16 L1 particles differ from the wild-type may be found in Zhou et al. 185 (1), 251-257, (1991) which is cited by the Examiner. Therein, at page 253, Zhou et al. specifically note that their heterogeneous HPV-16 L1 particles vary in size between 35 and 40 nanometers in diameter. By contrast, native papillomavirus particles possess a homogeneous size of 50 nanometers in diameter. Furthermore, the prototype HPV-16 L1 proteins further do not possess the characteristic icosahedral structure of native papillomavirus particles.

(10) The following additional experiment was conducted under my supervision and provides additional evidence that neither Zhou et al. reference produces L1 proteins which reproduce the conformation and antigenicity of native L1 proteins.

Experiment

In this experiment, the prototype HPV-16 L1 DNA which was expressed by Zhou et al. as well as a ABg wild-type HPV-16 L1 DNA which lacks the mutation contained in the HPV-16 L1 prototype were both expressed in sf9 insect cells using a baculovirus vector. Uninfected cells were used as the control group.

An immunofluorescence assay was then conducted in order to test the reactivity of the prototype HPV-16 L1 protein and the wild-type HPV-16 L1 protein with monoclonal antibodies which recognized either conformational epitopes contained on the HPV-16 L1 wild-type protein or a linear epitope contained on both the prototype and wild-type HPV/16 L1 protein. More particularly, one monoclonal antibody which recognized a linear epitope and the six antibodies which were specific to conformational epitopes contained on the HPV-16 L1 protein were tested. These immunofluorescence results demonstrated that the wild-type HPV-16 L1 protein reacted with all seven monoclonal antibodies which were tested. By contrast, cells which produced the prototype HPV-16 L1 particles only reacted with the monoclonal antibody which was specific to the linear epitope and failed to react with any of the six monoclonal antibodies which were specific to conformational HPV-16 L1 epitopes. The control cells did not react with any of the seven monoclonal antibodies. Both the prototype and wild-type L1 were transported to the nucleus of infected cells and aggregated in a similar manner. However, the aggregates of the prototype were only protected by antibodies which recognized non-conformational epitopes and failed to react with antibodies which recognized HPV/16 L1 conformational epitopes.

Immunofluorescence results obtained with two of these antibodies are shown in the photograph which is attached to this Declaration as Exhibit B. In this photograph the top panel corresponds to the cells which produce the prototype HPV-16 L1 particles, the middle panel corresponds to the cells which express the wild-type HPV-16 L1 particles, and the lower panels correspond to the control group. These results clearly show that the prototype HPV-16 L1 protein failed to react with the conformational antibody. Similar results (not shown) demonstrated that the cells which produce the HPV-16 L1 prototype also failed to react with the five other conformational monoclonal antibodies which were tested. This photograph further shows that the cells which expressed the wild-type HPV-16 L1 particles reacted with both the monoclonal antibody which recognized the linear epitope and the monoclonal antibody which recognized the conformational epitope. Further, it can be seen that the control group failed to react with either of the monoclonal antibodies which were tested. In my expert opinion these results provide convincing evidence that the HPV-16 L1 DNA which was expressed by Zhou et al. fails to produce L1 proteins which exhibit the same conformation and reproduce the antigenicity of L1 proteins expressed by native, intact papillomavirus virions. Further, it is my expert opinion based on these results that the HPV-16 L1 protein which was produced by Zhou et al., given its lack of proper conformation, would be totally unsuitable for use as a vaccine for affording immunity against human papillomavirus infection.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the

like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date 3/8/95

A Bennett Jenson, m.D

A. Bennett Jenson, M.D.

CURRICULUM VITAE

Alfred Bennett Jenson, MD
14220 Briarwood Terrace
Rockville, Maryland 20853

A. GENERAL INFORMATION

1. Born June 20, 1939 - Houston, Texas
2. Phone (work) 1-202-687-1407

B. TRAINING

1. B.A., Texas Christian University, Texas, 1957-61 (Cum Laude)
2. M.S., Baylor University (College of Medicine), Texas, 1964-66
3. M.D., Baylor College of Medicine, Texas, 1961-66, with honor
4. Internship, Department of Medicine, Baylor College of Medicine Affiliated Hospital Program, 1966-67
5. Residency, Department of Pathology, Baylor College of Medicine Affiliated Hospital Program, 1967-70
6. American Association of Immunology Summer Course, 1970
7. Research Trainee, U.S. Public Health Service, 1967-71
8. Postdoctoral Fellow of the National Multiple Sclerosis Society, 1973-75
9. Basic Program Officials Guide to Contracting, 1979

C. APPOINTMENTS

1. Chief Resident, Pathology, Ben Taub General Hospital, Houston, Texas, 1969-70
2. Instructor, Department of Pathology, Baylor College of Medicine, 1970-71
3. Instructor in Pathology, Department of Optometry, University of Houston, Texas, 1970-71
4. Comparative Pathologist, USAR, Veterinary Medicine Division, Veterinary Pathology Branch, Edgewood Arsenal, MD, 1971-73
5. Consultant, Cancer Cytology, Maryland State Department of Public Health and Hygiene, 1972-73
6. Research Associate in Immunopathology, Scripps Clinic and Research Foundation, La Jolla, CA, 1973-75
7. Senior Medical Surgeon, USPHS, Laboratory of Oral Medicine, National Institutes of Dental Research, National Institutes of Health, MD, 1975-80
8. Associate Professor, Department of Pathology, Georgetown University Schools of Medicine and Dentistry, 1980-1988; Professor, 1988-.
9. Vice-Chairman, Department of Pathology, Georgetown University Schools of Medicine and Dentistry, 1983-85
10. Acting Chairman, Department of Pathology, Georgetown University Schools of Medicine and Dentistry, 1985-89.

D. LICENSURE

1. Licensed in Texas, Maryland and Washington, DC
2. Board Certification in Anatomic Pathology, 1971
3. Board Elgible in Immunopathology

E. AWARDS

1. Sheard-Sanford Award of the American Society of Clinical Pathology, 1966
2. Salvation Army Boy's Club Service Award, 1967
3. Phi Chi Sophomore Award for Excellence in Teaching, Baylor College of Medicine. 1970
4. Army Commendation Medal, 1973
5. Nominee for Golden Apple Award for Excellence in Teaching, Georgetown University, 1982

F. MEMBERSHIP IN SCIENTIFIC SOCIETIES

1. Sigma Xi, from 1966
2. International Academy of Pathology, From 1970
3. American Association of Pathologists, From 1977

G. COMMITTEES/STUDY SECTIONS/SITE VISITS (NON-UNIVERSITY)

1. Site Visit Team, Diabetes Research Training Centers, U. Michigan, U. Iowa
2. Member, Intra-NIH Diabetes Mellitus Coordinating Committee, 1976-80
3. Chairman, Animal Care Committee, NIDR, NIH, 1978-80
4. International Committee on Taxonomy of Animal Viruses, Papovavirdae Study Group, from 1980
5. Ad Hoc Member, Research Committee (Sexually Transmitted Disease Program Projects), NIAID, NIH, 1982-84
6. Special Study Section (RFA-AM-05), Research on Autoimmunity Related to Endocrine Disease, March 11-13, 1985
7. Site Visit Team, NINCDS, NIH, Studies of Papillomas From the Upper Respiratory Tract, Long Island Jewish Medical Center, July 24-26, 1985
8. Site Visit Team, NCI, NIH, HPV; Biology, Clinical Significance and Epidemiology, Fred Hutchinson Cancer Research Center, Seattle, Washington, April 1-4, 1986.
9. Ad Hoc Member, Oral Biology and Medicine Study Section, Feb 1987, Feb 1988.
10. Special Study Sections, NCI, NIH, Epidemiology of HIV and Cancer, February 8-9, 1988, Bethesda, MD; February 12-13, 1989, Rockville, MD.
11. Site Visit Team, NCI, NIH, Hepatitis B Virus and Primary Hepatocellular Carcinoma, July 27-29, 1988, Fox Chase Cancer Center, Philadelphia, PA.
12. Chairman, Role of Human Papillomavirus Detection Tests Committee, International Society for the Study of Vulvar Disease, from 1989.
13. Special Study Section, NCI, NIH, Epidemiology of Cancer in US Ethnic/Minority Population. May 13-15, 1991, Rockville, MD.

H. SELECTED PRESENTATIONS (Since 1985)

1. Mary Lasker Conference Participant, American Cancer Society, Cancer and the Papillomavirus, Nov. 23-25, 1985
2. Invited Speaker, Ninth Peruvian Cancer Congress, Lima, Peru Nov. 26-28, 1985
3. Moderator, NCI Division of Cancer Etiology, Biological Carcinogenesis Branch. Workshop on the Transformation Mechanisms of Papillomavirus, Feb. 18-19, Bethesda, 1986
4. Speaker, Ninth International Cytology Congress, Brussels, Belgium, May 1986
5. Invited Speaker, Fourteenth International Cancer Congress, Budapest, Hungary, August, 1986
6. Moderator and Speaker, Human Papillomaviruses and Squamous Carcinoma: Second International Conference, Oct. 27-29, 1986; Third International Conference, October 24-27, 1988; Fourth International Conference, September 16-19, 1990, Chicago, Illinois.
7. Invited Speaker, Colpsocopy, Cervical and Vulvar Pathology and Gynecologic Laser Surgery Post-Graduate Course, Sarasota, Florida, March 23-29, 1987, Feb.28-March 5, 1988.
8. Invited speaker, Human Papillomaviral Infection and Lower Genital Tract Neoplasia Post-Graduate Course, The Regional Cancer Center-Saint Joseph's Hospital of Atlanta, Georgia, May 7-9, 1987
9. Chairman, Vistas in Immunopathology, XIV World Congress of Pathology, Papillomavirus and Cervical Cancer, June 21-26, Washington, DC, 1987
10. Co-organizer, Sixth International Papillomavirus Workshop, Georgetown University, Washington, DC, June. 14-18, 1987.
11. Invited speaker, Antigenic Epitopes of Human papillomavirus, International Titisee Conference, HPV and Cervical Cancer, West Germany, Sept. 1987.
12. Invited speaker, HPV-Related Lesions of Sites Other than the Genital Tract, College of American Pathology, HPV Workshop-Type Concensus Meeting, New York City, March 22-23, 1988.
13. Invited Speaker, The Use of Immunohistochemistry and DNA/RNA Hybridization Techniques for Diagnosis of Human Viral Diseases, College of American Pathology Course, October 25, 1988, Las Vegas, Nevada,; March 12, 1989, Chicago, Ill.
14. Invited Speaker, Detection of Viral Infections, AMA Biotechnology and Medicine Series, DNA Probes in the Practice of Medicine, San Diego, CA, November 4, 1988 November 9, 1989.
15. Invited Speaker, Role of Human Papillomavirus in Premalignant and Malignant Lesions of the Urogenital Tract, Role of Nucleic Acid Probes in Disease Diagnosis. ASM Meetings, New Orleans, LA, May 15, 1989.

16. Moderator and Invited Speaker, Human Papillomavirus Infections. The American Society for Colposcopy and Cervical Pathology, Washington, DC, October 21-22, 1989.
17. Keynote Speaker, Advances Toward the Development of a Broadly Cross-reactive Papillomavirus Vaccine Using Molecular Technology, American College of Veterinary Pathologists, Baltimore, MD, November 4, 1989.
18. Invited Faculty and Speaker, The Use of DNA Probes for the Diagnosis of HPV in "Diagnostic Pitfalls in Gynecologic Cytopathology" ASCP Workshop, Washington, DC, November 4, 1989.
19. Invited Speaker, Immune Response to Animal Papillomavirus, Animal Models of Human Viral Diseases: Relevance to Developmental Therapeutics, Burroughs-Wellecome-UCLA Colloquium, Keystone, CO, March 31-April 5, 1990.
20. Moderator (Immune Response Session) and Invited Speaker, Ninth International Papillomavirus Workshop, Heidelberg, Germany, May 12-18, 1990.
21. Invited Participant, The Bethesda System Second Conference, Bethesda, MD, April 29,30, 1991.
22. Co-organizer and Moderator, Polymerase Chain Reaction--A Diagnostic Tool for the 1990s. October 11, 12, Washington, DC
23. Invited Speaker, moderator and panel discussant, V. International Course on Cervical Cancer and Premalignant Lesions, October 12-14, 1991, Mexico City.

I. COMMITTEES (UNIVERSITY)

1. Infection Control Committee, GUMC, 1980-85
2. Institutional Review Board, GUMC, 1981-83
3. Animal Welfare Committee, GUMC, 1981-85
4. Chairman, Subcommittee of Infection Control Committee, Animals in the Hospital, 1981-present.
7 Microbiology Chairman Search Committee, 1981
8 Curriculum Committee, Georgetown University School of Dentistry, from 1982
7. Science Committee, Lombardi Cancer Center, from 1982
8. Medical Center Committee on Honorary Degrees, 1983
9. Director, Electron Microscopy Core Facility, Lombardi Cancer Center, 1982-85
10. Clinical Laboratory Director Search Committee, 1984.
11. Medical Executive Faculty, 1985-89.
12. Dental Executive Faculty, 1985-89.
13. Executive Staff, from 1985-89.
14. Chairman, Animal Care and Use Committee, from 1987.
15. Member, Committee on Patents, from 1988.
16. University Grievance Code Committee, from 1990

J. DEPARTMENTAL RESPONSIBILITIES

1. Director, Experimental Path. Graduate Program, 1981-85
2. Director, Dental General Pathology Course, 1982-1987.
3. Director, Electron Microscopy Unit, 1980-84, 1987-88; 1989-present.
4. Advisor, Immunocytochemistry Unit, 1980-89
5. Director, Immunofluorescence Unit, from 1982
6. Nephropathologist, from 1982
7. Director, Residency Program, 1988-1990
   Co-Director, with Dr. Stan Geyer, 1990-present.

K. MISCELLANEOUS

1. Principle Investigator, NIDR, NIH - Papillomas of the Oral Cavity, 1976-80
2. Project Officer, Contract on "Etiology of Oral Cavity Papillomas", 1979-80
3. Project Officer, Contract on "Search for Diabetogenic Viruses", 1979-80
4. President, Society of Fellows, Scripps Clinic and Research Foundation, 1974-75.75
5. Ad Hoc Pathologist, American Type Culture Collection, from 1981
6. Mayor's Commission on Forensic Pathology, 1989-present

L. EDITORIAL BOARDS

1. Survey of Immunologic Research- Immunopathology Editor, From 1981
2. Survey and Synthesis of Pathology Research, Editorial board from 1982

M. GRANTS-CONTRACTS

1. Search for Papillomavirus DNA in Premalignant and Malignant Squamous Lesions of the Oral Cavity and Lower Respiratory Tracts, CTR, January 1, 1982-August 30, 1991, $421,712, total direct costs, PI.

2. Antigen and Genome Detection of Arenavirus, Bunyavirus, and Filovirus Infections, Department of Defense, September 12, 1988-September 12, 1991, $494,000, total direct costs, PI.

3. Antigenic Determinants of the Papillomavirus L1 Capsid Protein (RO1 CA50182-01). NCI, NIH, July 1, 1989-1992, $227,700.00, total direct costs, PI.

4. HPV Vaccine Fund. $65,000, total costs, Co-PI with Dr. Harald zur Hausen, US-FRG Bilateral Agreement on Cancer for Development of a Vaccine against Human Papillomavirus (HPV).

N. BIBLIOGRAPHY

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2. Jenson, AB, Rabin, ER, Phillips, CA, and Melnick, JL: Reovirus encephalitis in newborn mice: An electron microscopic and virus assay study. Amer. J. Pathol. 47:223-239, 1965.

3. Jenson, AB, Rabin, ER, Bentinck, D, and Rapp, F: Reovirus viremia in newborn mice: An electron microscopic, virus assay and immunofluorescence study. Amer. J. Pathol. 49:1171-1183, 1966.

4. Jenson, AB, Rabin, ER, Wende, RD, and Melnick, JL: A comparative light and electron microscopic study of rabies and hart park virus encephalitis. Exptl. Molec. Pathol. 7:1-10, 1967.

5. Rabin, ER, and Jenson, AB: Electron microscopic studies of animal viruses with emphasis on in vivo infections. Prog. Med. Virol. 9:392-450, 1967.

6. Rabin, ER, Phillips, CA, Jenson, AB, and Melnick, JL: Vaccinia virus myocarditis in mice: An electron microscopic study. Exptl. Molec. Pathol. 4:98-111, 1965.

7. Rabin, ER, Jenson, AB, Phillips, CA, and Melnick, JL: Herpes simplex virus hepatitis in mice: An electron microscopic study. Exptl. Molec. Pathol. 8:34-48, 1968.

8. Melnick, JL, Rabin, ER, and Jenson, AB: Herpes virus factory in the form of a pentagonal dipyramidal crystal. J. Virol. 2:78-80, 1968.

9. Murphy, FA, Whitfield, SG, Coleman, PH, Calisher, CH, Rabin, ER, Jenson, AB, Melnick, JL, Edwards, MR. and Whitney, E:California group arboviruses: Electron microscopic studies. Exptl. Molec. Pathol. 9:44-56, 1968.

10. Rabin, ER, Jenson, AB, and Melnick, JL:Herpes simplex virus in mice: Electron microscopy of neural spread. Science 162:126-127, 1968.

11. Kalus, M, Jenson, AB, Rabin, ER, and Melnick, JL: Marmoset liver organ culture infected with herpes virus. Exptl. Molec. Pathol. 8:388-393, 1968.

12. Jenson, AB, and Fred, HL: Toothpick pleursy. JAMA 203:988, 1968.

13. Jenson, AB, and Fechner, RE: Ultrastructure of an intermediate Sertoli-Leydig cell tumor. A histogenetic misnomer. Lab. Invest. 21:527-535, 1969.

14. Jenson, AB, Rabin, ER, Bentinck, D, and Melnick, L: Rabiesvirus neuronitis. J. Virol. 3:265-269, 1969.

15. Jenson, AB, McCombs, RM, and Melnick, JL: Au-antigen particles. Lancet ii:311, 1969.

16. Jenson, AB, McCombs, RM, Sakurada, N, and Melnick, JL:Organ cultures inoculated with serum from a hepatitis patient with Au antigenemia. Exptl. Molec. Pathol. 13:217-230, 1970.

17. Askew, JB, Fechner, RE, Bentinck, DC, and Jenson, AB: Epithelial and myoepithelial oncocytes. Arch. Otolaryngol. 93:46-54, 1971.

18. Jenson, AB, Melnick, JL, Boyd, KR, and Wende, RD: Rapid identification of an arbovirus by observing its morphogenesis in the electron microscope. J. Inf. Dis. 123:551-554, 1971.

19. Jenson, AB, Spjut, HJ, Smith, MN, and Rapp,F: Intracellular branched tubular structures in an osteosarcoma. An ultrastructural and serological study. Cancer 27:1440-1448, 1971.

20. Acker, D, Jenson, AB, and Tenn, GK: Abdominal pregnancy with intrauterine device in situ. Obst. and Gynecol. 92:36-39, 1973.

21. Renne, RA, McLaughlin, R, and Jenson, AB: Measles virus-associated endometritis, cervicitis, and abortion in a rhesus monkey. JAVMA 163:639-641, 1973.

22. Puga, A, Jenson, AB, Boaz, J, Jensen, FC, Kohne, DE, and Lerner, RA: Molecular analysis of a murine leukemia virus produced by continuously growing thymocytes. Prog. Immunol. II, 5:15-, 1974.

23. Jenson, AB, Groff, DE, McConahey, PJ, and Dixon, FJ: Transmission of MuLV (Scripps) from parent to progeny mice: a comparison of assay systems. JNCI 57:421-424, 1976.

24. Jenson, AB, Groff, DE, McConahey, PJ, and Dixon, FJ: Transmission of MuLV (Scripps) from parent to progeny mice as determined by p30 antigenemia. Cancer Res. 36:1223-1232, 1976.

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35. Jenson, AB, Rosenberg, JH, and Notkins, AL: Virus-induced diabetes: Islet cell damage in children with fatal viral infections. Lancet ii:354-358, 1980.

36. Lack, EE, Jenson, AB, Smith, HG, Healy, GB, Pass, F, and Vawter, GF: Immunoperoxidase localization of human papillomavirus in laryngeal papillomas. Intervirol. 14:148-154,1980.

37. Shah, K., Jenson, AB, Lancaster, WD, Lewis, MG, and Kurman, RW: Papillomavirus and cervical dysplasia. Lancet ii:1190, 1980.

38. Lack, EE, Vawter, GF, Smith, HG, Healy, GB, Lancaster, WD, and Jenson, AB: Immunohistochemical localization of human papillomavirus in squamous papillomas of the larynx. Lancet 2:592, 1980.

39. Onodera, T, Toniolo, A, Ray, U, Jenson, AB, Knazek, RA, and Notkins, AL: Virus-induced diabetes mellitus XX. Polyendocrinopathy and autoimmunity. J. Exptl. Med. 153:1457-1473, 1981.

40. Jenson, AB, and Dobersen, MJ: Etiopathology of diabetes. Perspect. Ped. Pathol. 7:167-183, 1982.

41. Jenson, AB, Link, CC, and Lancaster, WD: Papillomavirus etiology of oral cavity papillomas. In Viral Infections in Oral Medicine. Ed. by J. Hooks and W Jordan. (Elsevier North Holland), pp 133-146, 1982.

42. Lancaster, WD, and Jenson, AB: Evidence of papillomavirus genus-specific antigens and DNA in laryngeal papilloma. Intervirol. 15:204-212, 1981.

43. Kurman, RJ. Shah, KH, Lancaster, WD, and Jenson, AB:Immunoperoxidase localization of papillomavirus antigens in human cervical dysplasia and vulvar condylomas. Am. J. Obstet. Gynecol. 140:931-935, 1981.

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48. Kurman, RJ, Sanz, LE, Jenson, AB, Perry, S, and Lancaster, WD: Papillomavirus infection of the cervix. Evidence for genus-specific antigens and DNA sequences. Int. J. Gynecol. Pathol. 1:17-28, 1982.

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54. Kurman, RJ, Jenson, AB, Sinclair, C, and Lancaster, WD: Detection of human papillomaviruses by immunocytochemistry. In Advances in Immunocytochemistry. ed. by RA DeLelis (New York:Masson), pp. 201-221, 1984.

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